



January 25, 1993

Mr. Ken Herstowski
United States Environmental Protection Agency
Region 7, Iowa Section
726 Minnesota Avenue
Kansas City, Kansas 66101

RECEIVED

JAN 27 1993

IOWA SECTION

Re: Subsurface investigation results
Douglas & Lomason Company
Red Oak, Iowa
EPA ID No. IAD041107871



R00347852

RCRA RECORDS CENTER

Dear Ken:

The subsurface investigation was conducted on 16-17 December 1992 and analytical results received from Pace, Incorporated the week of 11 January 1993. The analytical results indicate total chromium levels to be significantly less than the action level of 400 mg/kg for all samples.

The soil sampling was performed in accordance with the Douglas & Lomason Drum Storage Area Closure Plan ("Closure Plan"), dated 4 December 1991, and subsequent EPA modifications, with several exceptions. The exceptions, previously approved by EPA on or about 14 December 1992, are referenced below by the corresponding Closure Plan page number:

- (Page 3-7): One sample was obtained and analyzed per depth interval for interior samples rather than one sample per boring;
- (Page 4-2): Interior samples were obtained using a hand-auger rather than a split-spoon;
- (Page 4-3): Concrete coring flush water and field decon water were sent to the onsite wastewater treatment plant rather than being drummed.

The indoor sample locations are shown on Figure 1, attached, while the outdoor sample locations are shown on Figure 2, attached. The corresponding analytical results are presented on Table 1, attached.

As presented by Table 1, all sample results indicated total chromium levels significantly less than the EPA-approved action level of 400 mg/kg. Based on the Closure Activity Diagram, located in the Closure Plan and modified as Figure 3, attached, the next step in the closure process is to steam-clean the interior concrete

slab and collect and analyze the rinse water for total chromium. The applicable action level for this step will be 0.05 mg/l.

As outlined in the Closure Plan, steam-cleaning of the slab will be performed with a non-foaming surfactant and city water. The slab will be rinsed twice with city water with the second rinsate collected by a vacuum and sampled. The sample will then be analyzed for total chromium, as mentioned above.

A modification to the process outlined in the Closure Plan will be to send the wash and rinse waters to the onsite wastewater treatment plant rather than collecting with a vacuum and storing in 55-gallon drums. This is in accordance with the previously approved modification made during the coring of the concrete. The second rinsate will be collected in a vacuum and sampled prior to transfer to the onsite wastewater treatment plant.

The planned schedule of these activities is as follows:

	<u>Approximate Date</u>
• Steam-clean the slab/sample rinsate	Wk of 25 Jan 93
• Receive analytical results	Wk of 22 Feb 93
• Certification and documentation provided to EPA	Wk of 8 Mar 93

Please review the results presented above and confirm our approach for the remainder of this Closure Plan.

Based on our discussion on 25 January 93, HDR will be conducting the cleaning/sampling of the concrete slab area on 27 January 93. It is our understanding that the EPA will not be sending a representative to split water samples during this event. Subsequent tasks will be in accordance with the Closure Plan. If you have any questions, do not hesitate to contact me at 402/399-1364. Your continued cooperation on this project is appreciated.

Sincerely,

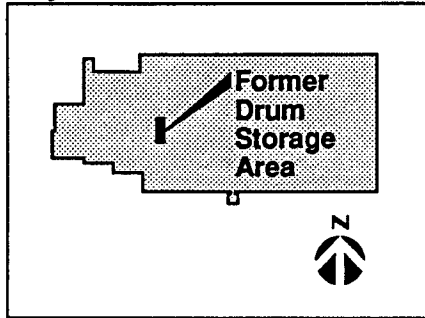


Thomas J. Furne, P.E.
Project Manager

cc: Ray Osborne - D&L

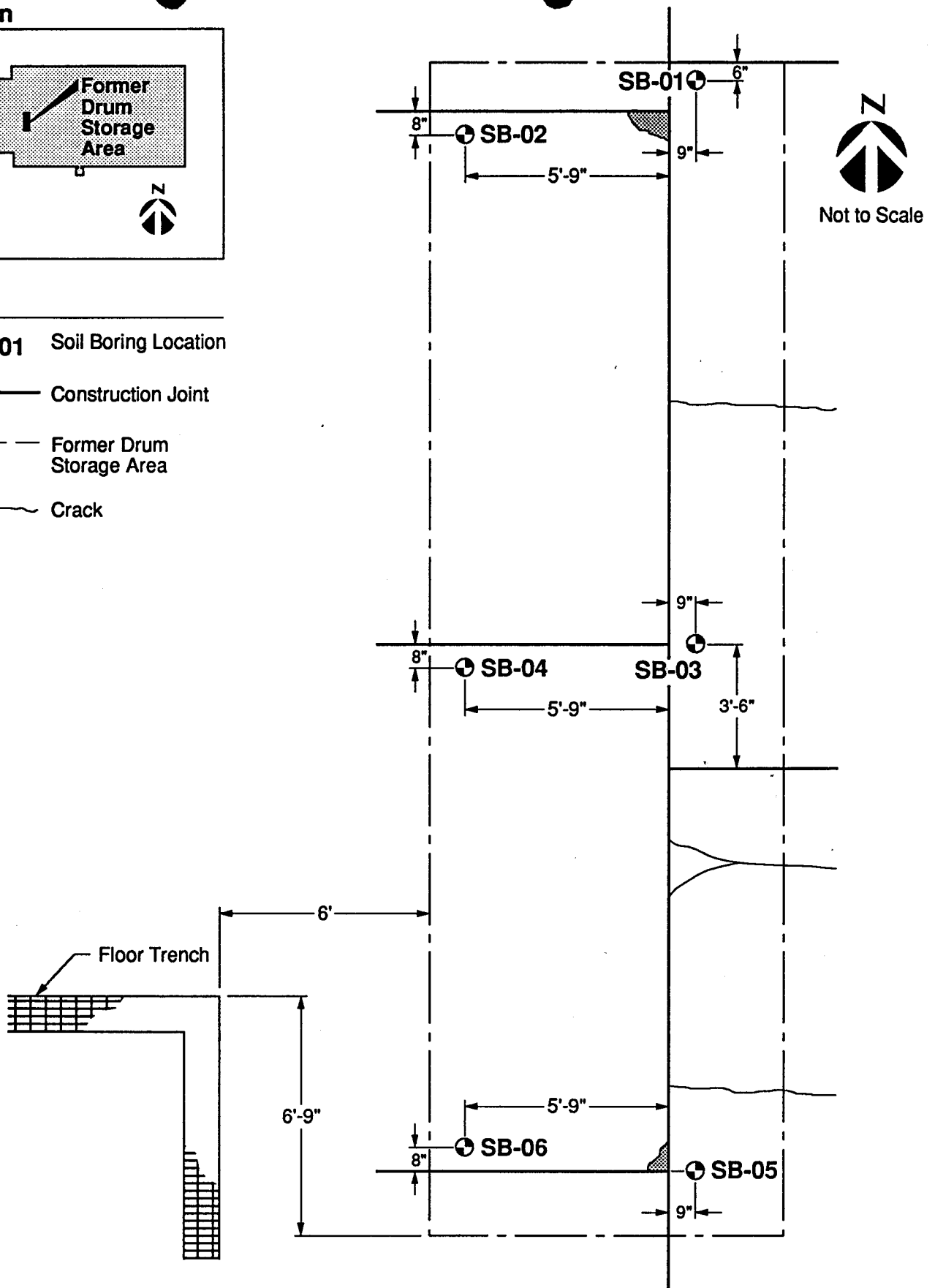
Enclosures: Figure 1 - Indoor Sample Locations
Figure 2 - Outdoor Sample Locations
Table 1 - Analytical Results
Figure 3 - Closure Activity Diagram

Key Plan



Legend

- SB-01 Soil Boring Location
- Construction Joint
- Former Drum Storage Area
- Crack



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HDR Engineering, Inc.

Indoor Sample Locations

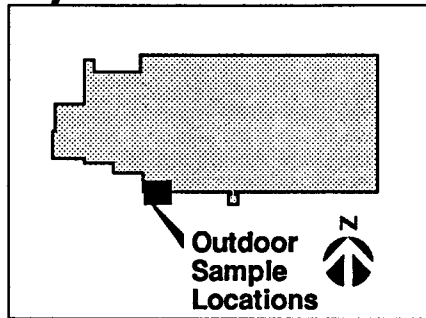


DOUGLAS & LOMASON COMPANY
Drum Storage Area Closure Plan
Red Oak, Iowa

Date
Jan. 1993

Figure
1

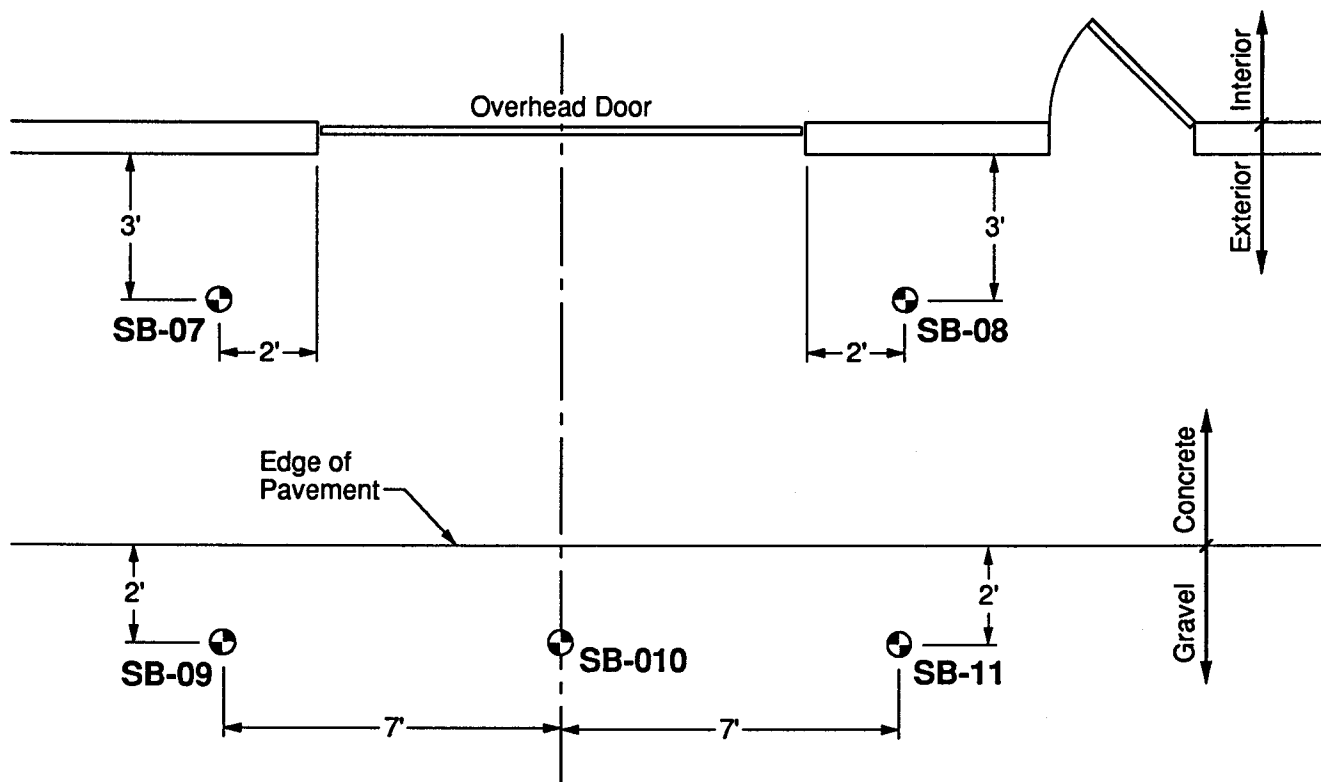
Key Plan



Not to Scale

Legend

⊕ SB-01 Soil Boring Location



HDR Engineering, Inc.

Outdoor Sample Locations



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Figure

2

Soil Boring Identification	Sample ⁽¹⁾ Depth	Sample Date	Analytical Detection Limit (mg/kg)	EPA Approved Action Level (mg/kg)	Analytical Result (mg/kg)
SB-01	0-8"	12/16/92	0.50	400	15
SB-01	8-16"	12/16/92	0.50	400	14
SB-01	16-24"	12/16/92	0.50	400	15
SB-02	0-8"	12/16/92	0.50	400	16
SB-02	8-16"	12/16/92	0.50	400	17
SB-02	16-24"	12/16/92	0.50	400	17
SB-03	0-8"	12/16/92	0.50	400	14
SB-03	8-16"	12/16/92	0.50	400	13
SB-03	16-24"	12/16/92	0.50	400	15
SB-04	0-8"	12/16/92	0.50	400	14
SB-04	8-16"	12/16/92	0.50	400	12
SB-04	16-24"	12/16/92	0.50	400	14
SB-05	0-8"	12/17/92	0.50	400	45
SB-05	8-16"	12/17/92	0.50	400	22
SB-05	16-24"	12/17/92	0.50	400	12
SB-06	0-8"	12/17/92	0.50	400	15
SB-06 ⁽²⁾	0-8"	12/17/92	0.50	400	46
SB-06	8-16"	12/17/92	0.50	400	11
SB-06	16-24"	12/17/92	0.50	400	16
SB-07 ⁽³⁾	0-6"	12/17/92	0.50	400	32
SB-07 ⁽³⁾	8-14"	12/17/92	0.50	400	17
SB-07 ⁽³⁾	18-24"	12/17/92	0.50	400	12
SB-07 ^{(2),(3)}	18-24"	12/17/92	0.50	400	14

Notes

- (1) Depth interval begins at clay subsoil
(2) Duplicate sample
(3) Composite sample from boring locations: SB-07, SB-08, SB-09, SB-10, SB-11



HDR Engineering, Inc.

Analytical Results - Total Chromium



DOUGLAS & LOMASON COMPANY
Drum Storage Area Closure Plan
Red Oak, Iowa

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Table
1

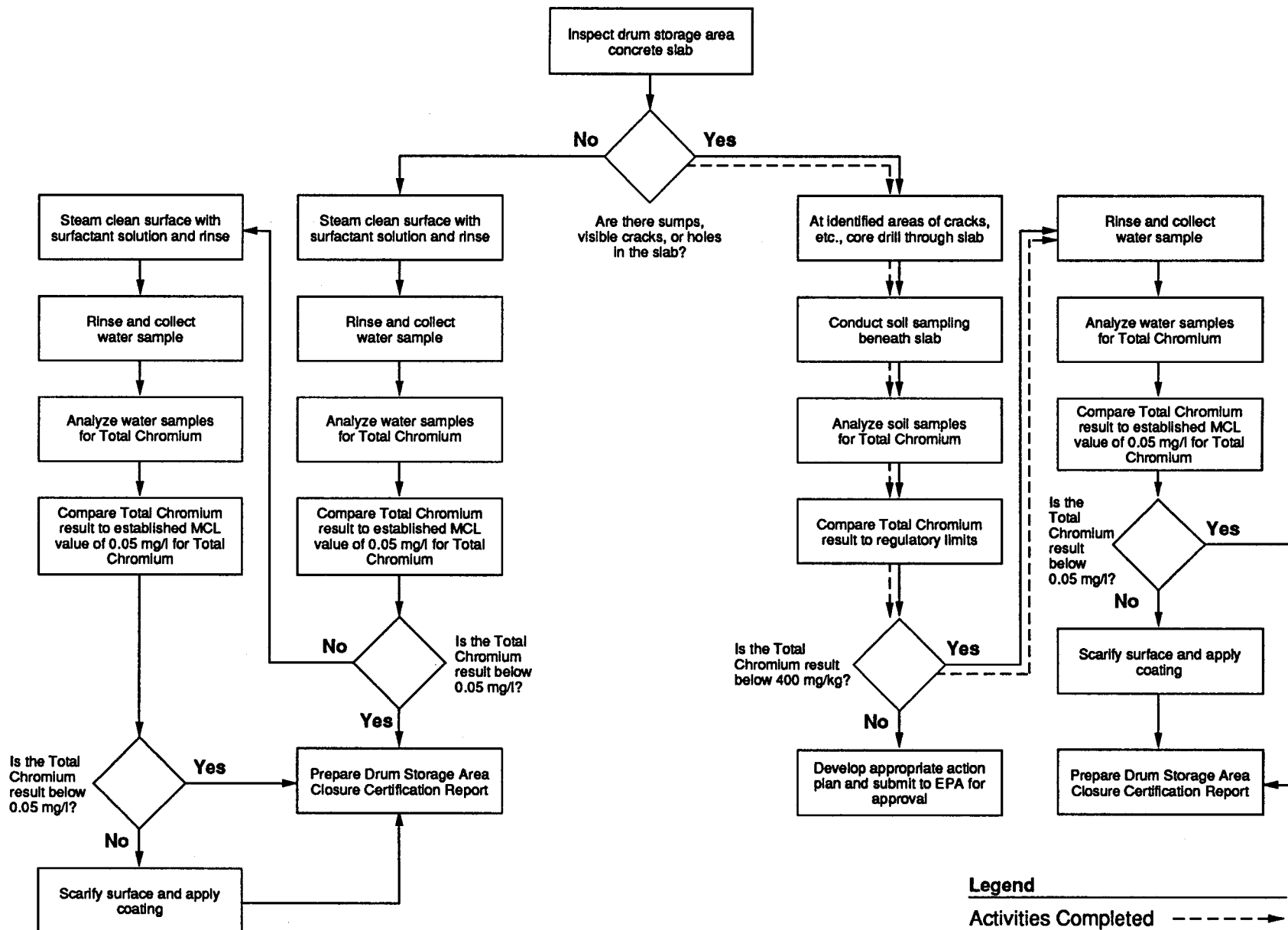
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DOUGLAS & LOMASON COMPANY
Drum Storage Area Closure Plan
Red Oak, Iowa

Closure Activity Diagram



Date

Jan. 1993

Figure

3